INTERNATIONAL SEARCH REPORT

Int...l Application No
PCT/GB2004/004826

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N5/08 C12N5/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, BIOSIS, WPI Data, EMBASE, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LUONG QUANG T ET AL: "Expression of Nm23-H1 in AML correlates with white cell count at diagnosis and in vitro acts as a survival factor for primary AMLs cells; evidence of a novel autocrine survival factor in AML." BLOOD, vol. 102, no. 11, 16 November 2003 (2003-11-16), page 611a, XP001193730 & 45TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF HEMATOLOGY; SAN DIEGO, CA, USA; DECEMBER 06-09, 2003 ISSN: 0006-4971 abstract page 611A, last paragraph ----- -/--	1,2,7,8, 22-24

[X] Further documents are listed in the continuation of box C.

[ ] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
4 May 2005	27/05/2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Noë, V

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/004826

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	OKABE-KADO JUNKO ET AL: "Physiological and pathological relevance of extracellular NM23/NDP kinases." JOURNAL OF BIOENERGETICS AND BIOMEMBRANES, vol. 35, no. 1, February 2003 (2003-02), pages 89-93, XP008031558 ISSN: 0145-479X abstract page 92, column 1, line 6 - column 2	1,2,7,8, 22-24,27
X	OKABE-KADO JUNKO ET AL: "Inhibitory action of nm23 proteins on induction of erythroid differentiation of human leukemia cells" BIOCHIMICA ET BIOPHYSICA ACTA, vol. 1267, no. 2-3, 1995, pages 101-106, XP008031891 ISSN: 0006-3002 abstract page 102, column 1, paragraph 2 page 103, column 1, line 6 - line 15	1,3,7,8, 22-27
A	OKABE-KADO J ET AL: "Identity of a differentiation inhibiting factor for mouse myeloid leukemia cells with NM23/nucleoside diphosphate kinase." BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS. 14 FEB 1992, vol. 182, no. 3, 14 February 1992 (1992-02-14), pages 987-994, XP008031856 ISSN: 0006-291X abstract page 992, line 7 - line 10 page 992, line 23 - line 24	
A	LOMBARDI DANIELA ET AL: "nm23: Unraveling its biological function in cell differentiation" JOURNAL OF CELLULAR PHYSIOLOGY, vol. 182, no. 2, February 2000 (2000-02), pages 144-149, XP008031851 ISSN: 0021-9541 page 146, column 2, last paragraph - page 148, column 1, paragraph 1	

-/--

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/004826

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NEGRONI A ET AL: "Neuroblastoma specific effects of DR-nm23 and its mutant forms on differentiation and apoptosis" CELL DEATH AND DIFFERENTIATION, vol. 7, no. 9, September 2000 (2000-09), pages 843-850, XP008031853 ISSN: 1350-9047 abstract page 844, column 1, paragraph 2 - column 2, paragraph 3	
A	MIYAZAKI H ET AL: "Overexpression of nm23-H2/NDP kinase B in a human oral squamous cell carcinoma cell line results in reduced metastasis, differentiated phenotype in the metastatic site, and growth factor-independent proliferative activity in culture." CLINICAL CANCER RESEARCH : AN OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH. DEC 1999, vol. 5, no. 12, December 1999 (1999-12), pages 4301-4307, XP002285298 ISSN: 1078-0432 abstract page 4304, column 2, last paragraph - page 4305, column 1	
A	WILLEMS ROEL ET AL: "Decrease in nucleoside diphosphate kinase (NDPK/nm23) expression during hematopoietic maturation" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 273, no. 22, 29 May 1998 (1998-05-29), pages 13663-13668, XP002285299 ISSN: 0021-9258 abstract page 13663, column 2, paragraph 2 page 13663, column 2, paragraph 5 page 13665, column 1 page 13667, column 1, paragraph 2 page 13667, column 1, last paragraph - column 2, paragraph 1 page 13668, column 1, paragraph 1	1,2

-/--

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/004826

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	VENTURELLI D ET AL: "OVEREXPRESSION OF DR-NM23, A PROTEIN ENCODED BY A MEMBER OF THE NM23 GENE FAMILY, INHIBITS GRANULOCYTE DIFFERENTIATION AND INDUCES APOPTOSIS IN 32DC13 MYELOID CELLS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 92, August 1995 (1995-08), pages 7435-7439, XP002942044 ISSN: 0027-8424 abstract page 7349, column 1, paragraph 2 - page 7350, column 1, paragraph 1	
A	GERVASI FABIO ET AL: "Nm23 Influences proliferation and differentiation of PC12 cells in response to nerve growth factor" CELL GROWTH AND DIFFERENTIATION, vol. 7, no. 12, 1996, pages 1689-1695, XP008031890 ISSN: 1044-9523 abstract	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/004826

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 10-21 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

2. [ ] Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.